PROJECT TITLE : TOBACCO ANALYSIS
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1. TOBACCO LOT ANALYSES

SPECIAL TRIALS

MD + tobacco, storage influence (Ref. 1)

Objective

This trial was made in order to determine if the influence of the storage in USA is as same as in Europa (Onnens). The examination of the tobacco is made on organoleptic and chemical characteristics.

Summary

Two different grades of US MD tobacco have been tested. Of each grade ten samples were taken in Onnens and ten samples in USA at the beginning of the storage (1979). A similar sample was made after one year of storage.

Overview

Part of the forty samples of the second series have been analysed. The results will be evaluated as soon as the last samples are analysed.

LTR - NEW BLEND RECIPE

Objective

A trial was made in Le Mans with a new recipe in order to increase the dust proportion in their blend (from 20-30 % to 50-60 % dust).

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Source: https://www.industrydocuments.ucsf.edu/docs/fxhk0000

Comments

Compared to the standard LTR, we have :

- a higher $N\text{-}NO_3$ level (0.32 % instead of 0.15 to 0.25 %) and a higher NO delivery (0.35 mg/cig instead of 0.15 to 0.25 mg/cig).
- a slightly lower DPM delivery (8.2 instead of 9.1 to 9.6 mg/cig).
- a higher TA level (0.92 % instead of 0.4 to 0.7 %). This last analysis must be confirmed because the smoke nicotine does not show any significant difference compared to the standard. The rest of the analysed parameters show no significant differences.

ROUTINE TOBACCO LOT ANALYSES

Introduction of inputs on EDP

Partial analytical results of ten lots were introduced in the PME Analytical Data List.

Lots under evaluation

Eight lots are under evaluation

Lots available, but not yet analysed

None.

2. ASSISTANCE TO OTHER PROJECTS

NINO

Objective

Denitratation of strips by fermentation in order to decrease the NO delivery of the cigarettes.

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Source: https://www.industrydocuments.ucsf.edu/docs/fxhk0000

Overview

We have received two samples of a blend of Burley strips, one denitrated by the Nino process, the other untreated. TLA analyses were made on the two samples. Due to the small amount of tobacco of the standard, cigarettes had to be handmade.

Comments

Compared to the standard, the denitrated sample shows :

- lower TA level (1.73 % instead of 2.53 %)
- lower $N\text{-}NO_3$ level (0.03 % instead of 0.55 %).
  The reduction is about 95 %.
- lower NO delivery (0.04 mg/cig instead of 0.60 mg/cig).
  Reduction of about 93 %.
- lower $N\text{-}NH_3$ level (0.05 % instead of 0.44 %)
- higher CO delivery (20.0 mg/cig instead of 14.1 mg/cig)
  The increase is about 42 %.
- lower puff count (8.3 instead of 9.1)
- lower HCN delivery (148 µg/cig instead of 178 µg/cig)
- lower ISH index (36 % instead of 56 %)

SPOTLESS, SPECIAL TRIALS

Objective

Study the influence of the addition of potassium nitrate instead of tripotassium citrate on the washed "B" blend.

Comments

The potassium nitrate does not influence the CO and the DPM delivery, but the other smoke parameters show some great variations. We observe for the sprayed potassium nitrate sample :

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Source: https://www.industrydocuments.ucsf.edu/docs/fxhk0000

- higher filter efficiency (based on the smoke nicotine analyses : 67 % instead of 52 %)
- lower puff count (5.4 instead of 6.4)
- higher aldehydes delivery (1.77 mg/cig instead of 1.40 mg/cig)
- higher $N\text{-}NO_3$ level (1.18 % instead of 0.00 %)
- of course higher NO delivery (1.30 mg/cig instead of 0.03 mg/cig)
- very high HCN delivery (210 mg/cig instead of 91 mg/cig, the increase is about 131 %).

We notice also that only about 20 % of the potassium extracted was bound with NO_3, the other 80 % comes from the extraction of other inorganic or organic salts.

Due to the low amount of TA, it will be necessary to repeat the filter efficiency analyses in order to confirme these influences.

ETON

The analytical results of the FC blend expanded in Onnens compared to the FC blend expanded in USA show :

- lower TA level (1.47 % instead of 2.26 %)
- higher RS level (17.5 % instead of 6.4 %)
- lower $N\text{-}NO_3$ level (0.02 % instead of 0.11 %)
- lower NO delivery (0.00 mg/cig instead of 0.11 mg/cig)
- lower SN delivery (0.63 mg/cig instead of 0.88 mg/cig)
- higher puff count (7.3 instead of 6.6)
- lower HCN delivery (160 µg/cig instead of 207 µg/cig)

The other analysed parameters do not show any significant difference.

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Source: https://www.industrydocuments.ucsf.edu/docs/fxhk0000

Reference

1. Mr. Karle's report : "Chemical, physical and organoleptic examination of MD tobaccos ....., of May 12, 1978", dated September 19th, 1978.

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Source: https://www.industrydocuments.ucsf.edu/docs/fxhk0000